REMARKS

Claims 1-22 are pending in the present application and stand rejected. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

The Outstanding Office Action states that Claims 1-22 are rejected under 35 U.S.C. §103 as being unpatentable over Severance, Jr., U.S. 6,362,450 in view of Horner-Richardson et al. U.S. 20030034333. The Outstanding Office Action further states that Severance, Jr., teaches the claimed plasma arc torch except for the textured outer surface on the distal end of the electrode and that Horner-Richardson et al. teaches the textured outer surface. Applicants respectfully request reconsideration of these rejections in light of the following remarks.

Applicants submit that Severance Jr. and Horner-Richardson et al. cannot render these claims obvious because neither of these references disclose using **adjacent perimeter surfaces** of an electrode and an adjacent cathodic element to provide **both electrical contact and passage of the fluid** (Claims 1-22) as well as a textured outer surface (Claims 1-11) or a distal extension (Claims 12-22) on a distal end portion of the electrode.

As defined in the written specification at paragraph [0133], the adjacent perimeter surfaces are defined at the lateral interface, or through a lateral section cut, between the electrode and the cathode. At this lateral interface, around the adjacent perimeter surfaces, the claimed invention provides **both** electrical contact **and** the passage of fluid

for cooling as shown from Figure 12d below, wherein the adjacent perimeter surfaces are highlighted in color for purposes of demonstration:

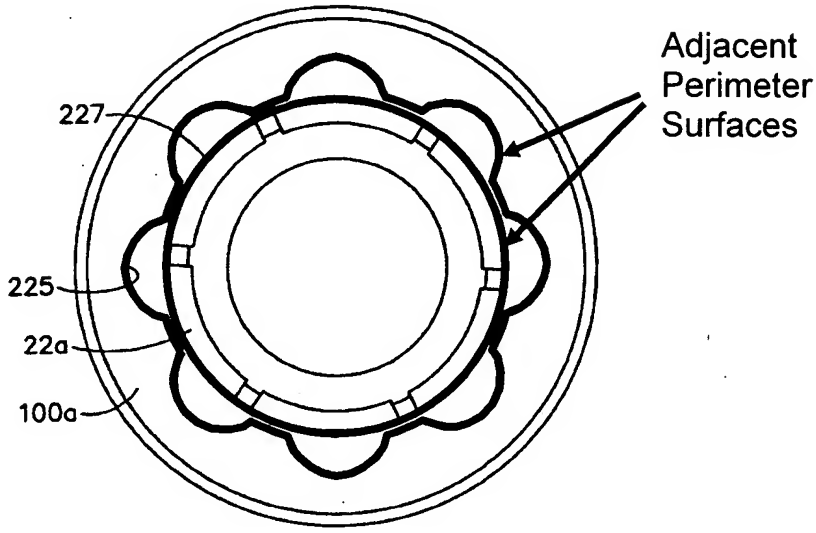

FIG. 12d

Unlike the claimed invention, Severance et al., discloses an electrode 40 in electrical contact with an adjacent cathodic element 29 through a holder 41. The holder 41 and the adjacent cathodic element 29 are connected through threaded portions 27, which do not allow for both electrical contact and passage of the fluid.

The Outstanding Office Action also refers to element 51 as an electrode. However, element 51 is a channeled valve pin 51 for guiding the flow of the gas through the central passageway 43 of the holder 41. The channeled valve pin 51 is also used as a safety device to interrupt the gas flow to the central passageway 43 by allowing the

ball 29 to seat against the valve seat 34 should the holder 41 or valve pin 51 be left out. (see col. 8, lines 40-54). There is no indication whatsoever in Severance et al. that the channeled valve pin 51 functions as an electrode and is configured for electrical contact and passage of fluid between cathodic element 29 through adjacent perimeter surfaces as defined in the claimed invention.

Horner-Richardson et al., as stated in the Outstanding Office Action, is applied for teaching that the distal end of a plasma electrode can be textured. In light of the above arguments and since Horner-Richardson et al., does not teach adjacent perimeter surfaces for both electrical contact and fluid passage, this reference cannot render Claims 1-22 obvious. Moreover, with regard to Claims 12-22, neither Severance et al. nor Horner-Richardson et al. teach or suggest the use of a distal extension on an electrode. For at least these reasons, Applicants respectfully request that the rejections of Claims 1-22 be withdrawn.

CONCLUSION

It is believed that all of the stated grounds of objection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding objections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7524.

Respectfully submitted,

Dated: 17 AUG 05

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